

CIRCUIT AND METHOD FOR REDUCING NOISE INTERFERENCE IN DIGITAL
DIFFERENTIAL INPUT RECEIVERS

ABSTRACT OF THE DISCLOSURE

A circuit and method reduces noise signals coupled to a reference voltage used by a digital differential input receiver having an input that is coupled to an input/output terminal. The circuit and method selectively isolates the reference voltage from the input/output terminal to which output signals are selectively applied. The isolation occurs responsive to detecting that an output signal is being applied to the input/output terminal so that transitions of the output signal are not coupled through the input receiver to generate noise in the reference voltage. In one embodiment, the isolation is provided by placing an isolation circuit between the input receiver and either the input/output terminal or a source of the reference voltage. In another embodiment, the isolation is provided by selectively biasing the input receiver so that coupling of output signal transitions through the input receiver is substantially reduced.